

# **EXHIBIT 1**

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**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION**

GOOGLE LLC,

**Plaintiff**

V.

14 | SONOS, INC.,

## Defendant.

CASE NO. 3:20-cv-06754-WHA

## **GOOGLE LLC'S INVALIDITY CONTENTIONS**

1 conjunction with others) the subject matter claimed in the Asserted Patents. For example, should  
 2 discovery reveal additional evidence that Sonos derived the Cloud Queue patents based on  
 3 Spotify's collaboration with Sonos, or that Sonos derived the Zone Scene patents from members  
 4 on the Sonos Forums, or that Sonos derived the Cloud Queue patents from Google during their  
 5 collaboration, those facts may impact the inventorship of the asserted patents by, among other  
 6 things, showing improper inventorship and/or lack of standing. Should Google obtain additional  
 7 evidence, it will provide the name(s) of any new person(s) from whom and the circumstances  
 8 under which the claimed invention or any part of it was derived.

9       Prior art not included in this disclosure, whether known or not known to Google, may  
 10 become relevant. In particular, Google is currently unaware of the extent, if any, to which Sonos  
 11 will contend that limitations of the Asserted Patents are not disclosed in the prior art identified by  
 12 Google. Sonos has refused to answer Google's interrogatories requesting its validity contentions  
 13 for the references in these contentions. To the extent Sonos disputes the disclosure of any  
 14 limitation, Google reserves the right to identify other references that would render obvious the  
 15 allegedly missing limitation(s) of the disclosed device or method. Further, because discovery  
 16 remains in its early stages Google has not yet completed its search for or analysis of relevant prior  
 17 art, Google reserves the right to revise, amend, and/or supplement the information provided  
 18 herein, including identifying, charting, and relying on additional references, should Google's  
 19 further search and analysis yield additional information or references, consistent with the Federal  
 20 Rules of Civil Procedure.

21       Additionally, because third-party discovery is not yet complete, Google reserves the right  
 22 to present additional items of prior art under 35 U.S.C. §§ 102(a), (b), (e), and/or (g), and/or § 103,  
 23 located during the course of such discovery or further investigation, and to assert invalidity under  
 24 35 U.S.C. §§ 102(c), (d), or (f), to the extent that such discovery or investigation yields  
 25 information forming the basis for such invalidity. For example, Google has issued and expects to  
 26 issue subpoenas to, and receive information from, third parties believed to have knowledge,  
 27 documentation, and/or corroborating evidence concerning some of the prior art listed below and/or  
 28

**Exhibit 966-5**  
**Invalidity Claim Chart for U.S. Patent No. 10,469,966 (“the ’966 patent”)**

**Sonos Forums (“Sonos Forums”):** The Sonos Forums were publicly available at least as of September 2005.

The Sonos Forums anticipate at least claims 1, 2, 4, 6, 8, 9, 10, 12, 14, 16 of the ’966 patent under 35 U.S.C. § 102, and render obvious claims 1, 2, 4, 6, 8, 9, 10, 12, 14, 16 of the ’966 patent under 35 U.S.C. § 103, alone based on the state of the art and/or in combination with one or more of the secondary references noted in the below chart, or one or more of the references noted in Riders A-H, L. To the extent it is argued this reference does not disclose any element, that element would be obvious based on the state of the art and/or in combination with one or more of the references noted in Riders A-H, L.

The Sonos Forums were described in a printed publication, or in public use, on sale, sold, known in this country, or otherwise available to the public before the priority date of the ’966 patent. Features of the Sonos Forums would have been apparent to a person of ordinary skill in the art, rendering the reference and all publications describing them § 102(a), (b), and (f) prior art.

At least the following documents describe the functionality of the Sonos Forums:

1. <https://en.community.sonos.com/>
2. <https://en.community.sonos.com/music-services-and-sources-228994/virtual-zones-and-zone-grouping-14604>
3. <https://en.community.sonos.com/music-services-and-sources-228994/macro-presets-4528>

Google expects to supplement this chart upon production of source code and other documents produced by Sonos in discovery in this litigation relating to the Sonos Forums.

These documents themselves are also prior art under at least one of § 102(a), (b), (f) and § 103 based on their dates of publication and public availability.

To avoid duplication and cumulative excerpts, exemplary quotations and citations are provided. The citations to portions of any reference in this chart are exemplary only. Google reserves the right to use the entirety of any reference cited in this chart to show that the asserted claims are anticipated and/or obvious, or to show the state of the art at the relevant time. References to figures should be understood to also refer to any accompanying text. Additional support can be found elsewhere in the prior art reference, and Google expressly reserves the right to rely on such other support and passages at a later time. The use of claim terms in the below chart is based on Sonos’ construction of claim terms in its infringement contentions as understood by Google, as well as the plain and ordinary meaning of the claim terms. This chart should not be construed as consenting to or agreeing with Sonos’ construction of claim terms.

Because discovery is ongoing, Google reserves all rights to amend its invalidity contentions based on new information produced in discovery.

Google expressly reserves the right to supplement its invalidity contentions, including this chart, to demonstrate that the prior art invalidates the claims of the '966 patent.

With respect to this prior art under Section 102(f), Sonos reviewed and discussed feature suggestions with users on its forums. *E.g.*, <https://en.community.sonos.com/music-services-and-sources-228994/virtual-zones-and-zone-grouping-14604>. Disclosures by those other than the named inventors on the Sonos forums shows prior conception of the claimed subject matter and communication of the conception to the Sonos “inventor.” In the alternative, combining the ideas expressed by non-inventors on the Sonos Forums and then-existing Sonos products or other prior art addressed in these invalidity contentions would have been obvious to a person of ordinary skill in the art, as the forum posts explicitly suggest.

The disclosures in the Sonos Forums cited in the chart below were made with reference to and incorporation of the prior art Sonos System. The Sonos Forum disclosures were made as feature descriptions of, additions to, modifications of, and/or combinations with the prior art Sonos System. Google therefore hereby incorporates by reference its discussion of the corresponding claim elements in the Sonos System prior art charts and disclosures in these Invalidity Contentions. The disclosure of the corresponding elements of the Sonos System were disclosed in the Sonos Forums and/or would have been obvious to combine with those disclosures given the explicit motivation to incorporate those teachings with the Sonos System.

<b>Claim 1 Portion</b>	<b>Claim 1 Text</b>	<b>The Sonos Forums</b>
[1Pre]	<p>1. A computing device comprising: one or more processors; a non-transitory computer-readable medium; and program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising.</p>	<p>The Sonos Forums discloses a computing device comprising: one or more processors; a non-transitory computer-readable medium; and program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising. For example:</p>

**Exhibit 885-5**  
**Invalidity Claim Chart for U.S. Patent No. 10,848,885 ("the '885 patent")**

**Sonos Forums ("Sonos Forums"):** The Sonos Forums were publicly available at least as of September 2005.

The Sonos Forums anticipate at least claims 1, 3, 7, 8, 10, 14 of the '885 patent under 35 U.S.C. § 102, and render obvious claims 1, 3, 7, 8, 10, 14 of the '885 patent under 35 U.S.C. § 103, alone based on the state of the art and/or in combination with one or more of the secondary references noted in the below chart, or one or more of the references noted in Riders A-H, L. To the extent it is argued this reference does not disclose any element, that element would be obvious based on the state of the art and/or in combination with one or more of the references noted in Riders A-H, L.

The Sonos Forums were described in a printed publication, or in public use, on sale, sold, known in this country, or otherwise available to the public before the priority date of the '206 patent. Features of the Sonos Forums would have been apparent to a person of ordinary skill in the art, rendering the reference and all publications describing them § 102(a), (b), and (f) prior art.

At least the following documents describe the functionality of the Sonos Forums:

1. <https://en.community.sonos.com/>
2. <https://en.community.sonos.com/music-services-and-sources-228994/virtual-zones-and-zone-grouping-14604>
3. <https://en.community.sonos.com/music-services-and-sources-228994/macro-presets-4528>

Google expects to supplement this chart upon production of source code and other documents produced by Sonos in discovery in this litigation relating to the Sonos Forums.

These documents themselves are also each individually prior art under at least one of § 102(a), (b), (f) and § 103 based on their dates of publication and public availability.

To avoid duplication and cumulative excerpts, exemplary quotations and citations are provided. The citations to portions of any reference in this chart are exemplary only. Google reserves the right to use the entirety of any reference cited in this chart to show that the asserted claims are anticipated and/or obvious, or to show the state of the art at the relevant time. References to figures should be understood to also refer to any accompanying text. Additional support can be found elsewhere in the prior art reference, and Google expressly reserves the right to rely on such other support and passages at a later time. The use of claim terms in the below chart is based on Sonos' construction of claim terms in its infringement contentions as understood by Google, as well as the plain and ordinary meaning of the claim terms. This chart should not be construed as consenting to or agreeing with Sonos' construction of claim terms.

Because discovery is ongoing, Google reserves all rights to amend its invalidity contentions based on new information produced in discovery.

Google expressly reserves the right to supplement its invalidity contentions, including this chart, to demonstrate that the prior art invalidates the claims of the '885 patent.

With respect to this prior art under Section 102(f), Sonos reviewed and discussed feature suggestions with users on its forums. *E.g.*, <https://en.community.sonos.com/music-services-and-sources-228994/virtual-zones-and-zone-grouping-14604>. Disclosures by those other than the named inventors on the Sonos forums shows prior conception of the claimed subject matter and communication of the conception to the Sonos "inventor." In the alternative, combining the ideas expressed by non-inventors on the Sonos Forums and then-existing Sonos products or other prior art addressed in these invalidity contentions would have been obvious to a person of ordinary skill in the art, as the forum posts explicitly suggest.

The disclosures in the Sonos Forums cited in the chart below were made with reference to and incorporation of the prior art Sonos System. The Sonos Forum disclosures were made as feature descriptions of, additions to, modifications of, and/or combinations with the prior art Sonos System. Google therefore hereby incorporates by reference its discussion of the corresponding claim elements in the Sonos System prior art charts and disclosures in these Invalidity Contentions. The disclosure of the corresponding elements of the Sonos System were disclosed in the Sonos Forums and/or would have been obvious to combine with those disclosures given the explicit motivation to incorporate those teachings with the Sonos System.

<b>Claim 1 Portion</b>	<b>Claim 1 Text</b>	<b>The Sonos Forums</b>
[1Pre]	<i>A first zone player comprising:</i>	The Sonos Forums include a first zone player. For example: